Amendments to the Specification:

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On page 9, please replace the last paragraph with the following rewritten paragraph:

The hemoglobin hyperpolymers can be further modified chemically in many ways other than intermolecular crosslinking (polymerization). For example, chemically reactive effectors can be covalently linked to modify the affinity and cooperativeness of ligand binding. Other macromolecules (for example, such as polyethylene oxides, polyethylene glycols, dextrans, hydroxyethylstarches, etc.) with different chain lengths (molecular weights) can be covalently linked for various desired functional improvements of the hemoglobin hyperpolymers, for example to reduce their immunogenicity or to lengthen residence time in the vascular system (Katren, V.: "The Conjugation of Proteins With Polyethylene Glycol and Other Polymers - Altering Properties of Proteins to Enhance Their Therapeutic Potential," Advanced Drug Delivery Reviews 10 (1993): 91 - 114), or to improve compatibility with proteins of the 'recipient' blood plasma (DE 100 31 744 A 1).